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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KIRSTAN ANDERSON VANDERSLUIS

Appeal 2009-001088
Application 09/900,079
Technology Center 2100

Decided: February 24, 2010

Before HOWARD B. BLANKENSHIP, DEBRA K. STEPHENS, and
JAMES R. HUGHES, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-29, which are all the claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

Invention

Appellant's invention relates to data format conversion. The invention relates in particular to converting data from a first hierarchical data scheme (e.g., relational database) to a second hierarchical data scheme (e.g., XML (eXtensible Markup Language) file). *See* Spec. 1-2.

Representative Claim

1. A system for converting data in a first hierarchical data scheme into a second hierarchical data scheme, comprising:
 - a template defining the second hierarchical data scheme, wherein a hierarchical data scheme is a scheme that groups data and its context;
 - a dynamic data generation module contained in the template;
 - and
 - a data source, in communication with the dynamic data generation module, containing data in the first hierarchical data scheme.

Prior Art

Povilus	5,740,425	Apr. 14, 1998
Krupa	2002/0156811 A1	Oct. 24, 2002
Fernandez	6,604,100 B1	Aug. 5, 2003
Prompt	6,985,905 B2	Jan. 10, 2006

Examiner's Rejections

Claims 1-12 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-3, 5-11, and 13-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Fernandez.

Claims 4 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernandez and Prompt.

Claims 18-23 and 25-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernandez and Krupa.

Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernandez, Krupa, and Povilus.

ANALYSIS -- § 101

“The four categories [of § 101] together describe the exclusive reach of patentable subject matter. If a claim covers material not found in any of the four statutory categories, that claim falls outside the plainly expressed scope of § 101 even if the subject matter is otherwise new and useful.” *In re Nuijten*, 500 F.3d 1346, 1354 (Fed. Cir. 2007).

The Examiner submits that claims 1 through 12 are directed to non-statutory subject matter because the body of base claim 1 merely contains a dynamic data generation module containing data in the first hierarchical data schema, which can be a software module (or modules). The Examiner concludes that claim 1 is directed to software *per se*, or a computer listing *per se*, which is not within a statutory class. Ans. 3-4.

Appellant argues that claim 1 recites a data source, which is a piece of computer hardware. In addition, according to Appellant, the claim states that the data source is “in communication,” which means there is a communication system. App. Br. 9.

The Examiner responds that claims 1 through 12 claim no “definitive” hardware components. In the Examiner’s view, the “system” is broad enough to read on a mere software program. Ans. 13-14.

We note that the more abstract, or broader, embodiment of the described invention refers to data source (or data store) 26 (Fig. 1) as a source and a store of data with respect to the dynamic data generation module 24. Spec. 6:1-21. Further, the dynamic data generation module 24 queries the data source 26 for data stored therein. *Id.*

The Examiner’s statement of the § 101 rejection does not address the “data source” of claim 1. The responsive arguments in the Answer do not directly address the “data source,” but allege there are no “definitive” hardware components in the claims. The Answer lacks an explanation in support of why the artisan would consider the “data source” of claim 1 as not requiring any type of hardware component.

We conclude that the rejection has not demonstrated that at least the “data source” in communication with the dynamic data generation module represents no more than software *per se* or a computer listing *per se*. Moreover, if the “data source” includes hardware elements, the “dynamic generation module” of claim 1 must also be supported by hardware, since the module is “in communication with” the data source.

Because the rejection fails to show that the claims are directed to no more than a computer program in the abstract, we cannot sustain the § 101 rejection of claims 1-12 as being directed to non-statutory subject matter.

Claim Groupings

Based on Appellant's arguments in the Appeal Brief and claim dependencies, we will decide the appeal with respect to the rejections over the prior art on the basis of claims 1, 13, 18, and 26. *See* 37 C.F.R. § 41.37(c)(1)(vii).

FINDINGS OF FACT

Fernandez

Fernandez describes a method for converting relational data to XML (Extensible Markup Language). Abstract.

The invention includes "SilkRoute," which Fernandez describes as a tool that serves as middleware between a relational database server (RDBMS) 110 (Fig. 1) and an application 120, accessing data over a distributed network. Col. 3, ll. 10-24; col. 5, l. 64 - col. 6, l. 10.

Applications typically contact SilkRoute 100 (Fig. 1) to request data. An application 120 only sees the virtual XML view, not the underlying relational database. An application forms a query to request data. The query-composer module 102 produces an executable query. Col. 5, ll. 11-25.

The executable query is passed to the translator 104 (Fig. 1), which may partition the executable query into one or more SQL queries ("a data-extraction part") and an XML template ("an XML-construction part"). Col. 5, ll. 26-36.

The SQL queries may then be sent to the RDBMS server 110 (Fig. 1), which returns one tuple stream per each query. The XML generator module

106 merges the tuple streams with the XML template and produces the XML document, which is returned to the application 120. Col. 5, ll. 37-44.

PRINCIPLES OF LAW -- §§ 102 and 103

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.” *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

ANALYSIS -- §§ 102 and 103

Claim 1

The Examiner finds claim 1 to be anticipated in the manner set out at pages 4 and 5 of the Answer. Appellant argues that the “dynamic data generation module” of Fernandez (XML generator 106) is not “contained in the template” as recited in the claim.

Fernandez at column 5 (*e.g.*, lines 26 through 44) appears to be quite clear in describing the “XML template” as being passed to the XML generator module (from translator 104). The generator module can then merge the data provided by RDBMS sever 110 with the template, thus producing the XML document that is returned to application 120.

In view of the Examiner's response at pages 14 and 15 of the Answer, the finding that the XML generator 106 in Fernandez is "contained in the template" appears to rest entirely on the depiction of SilkRoute 100 in Figure 1 of the reference. For example, the Examiner submits that "it is easy to see the XML Generator module 106 clearly contained within the XML Template 100." Ans. 15.

Fernandez, however, refers to "SilkRoute" 100 in Figure 1, rather than "XML Template" 100. In view of the textual description of Figure 1, the lettering "XML Template" does not refer to system (SilkRoute) 100, but appears to refer to the template provided by translator 104 to XML generator 106. One arrow in Figure 1 represents an SQL query from translator 104 to RDBMS 110. Another arrow represents the Tuple Stream from RDBMS 110 to XML generator 106. A third, curved arrow represents the XML Template from translator 104 to XML generator 106, which needs both the template and the tuple stream data to produce the XML document.

We thus agree with Appellant that Fernandez does not support the finding that the XML generator 106 is contained in the template as recited in claim 1. Moreover, the rejection fails to demonstrate that the artisan might have considered the SilkRoute system itself as a "template" within the meaning of claim 1.

We therefore cannot sustain the § 102 rejection of claim 1, nor that of claims 2, 3, and 5 through 11, which depend from claim 1 and are rejected on the same basis.

Claim 13

The Examiner finds claim 13 to be anticipated by Fernandez. Appellant argues that the reference does not describe a “dynamic template.” Step (c) of claim 13 recites “executing” the dynamic template.

The Examiner’s response (Ans. 17) relies, perhaps, on considering “SilkRoute” 100 to be the same as the XML template described by Fernandez. As discussed in our review of the rejection of claim 1, the SilkRoute tool has not been shown to be an XML template or any other sort of template. We do not find any indication in Fernandez that the XML template provided to XML generator 106 is executable, or contains any executable code. Consistent with the Examiner’s indication at page 17 of the Answer, Fernandez describes the template as being filled in (by XML generator 106) with the results of the query (to RDBMS 110), which does not require a dynamic template that is executed as recited in claim 13.

“[A]bsence from the reference of any claimed element negates anticipation.” *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571 (Fed. Cir. 1986). We are thus persuaded that the rejection fails to show anticipation of claim 13. We cannot sustain the rejection of claim 13, nor that of claim 14, which depends from claim 13 and is also rejected under § 102 over Fernandez.

Claims 18, 26

Independent claims 18 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernandez and Krupa.

In response to the rejection of claim 18, Appellant paraphrases language of the claim, argues there is no suggestion that the XML

construction part (XML template) is executable in Fernandez, and submits that the addition of Krupa “does not solve this.” App. Br. 12. In response to the rejection of claim 26, Appellant paraphrases language of claim 26 and submits substantially the same argument as that in response to the rejection of claim 18. *See id.* at 13.

However, neither of claim 18 or claim 26 recites or requires an “executable” template.

We are thus not persuaded of error in the rejection of claims 18 or 26. We refer to the Examiner’s findings in the Answer, and particularly to pages 17 through 19 of the Response to Arguments section. The Examiner cites specific teachings in Fernandez and explains why the artisan would recognize that the teachings with respect to “dynamic” generation and processing of data meet the claim limitations.

Conclusion -- Prior Art Rejections

In view of the disposition of representative claims and the claim dependencies, we do not sustain the § 102 rejection of claims 1-3, 5-11, and 13-17 over Fernandez. We sustain the applied § 103(a) rejections of claims 18-29. We do not sustain the § 103(a) rejection of claims 4 and 12, because the claims depend from claim 1 and the § 103(a) rejection over Fernandez and Prompt does not remedy the deficiencies in the § 102 rejection applied against claim 1.

DECISION

The rejection of claims 1-12 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is reversed.

The rejection of claims 1-3, 5-11, and 13-17 under 35 U.S.C. § 102(e) as being anticipated by Fernandez is reversed.

The rejection of claims 4 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Fernandez and Prompt is reversed.

The rejection of claims 18-23 and 25-29 under 35 U.S.C. § 103(a) as being unpatentable over Fernandez and Krupa is affirmed.

The rejection of claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Fernandez, Krupa, and Povilus is affirmed.

Because we have sustained at least one ground of rejection against claims 18-29, the Examiner's decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED-IN-PART

mssc

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